



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/588,726

08/08/2006

Rowland G. Hunt

36-1996

1974

23117

7590

09/15/2009

NIXON & VANDERHYE, PC
901 NORTH GLEBE ROAD, 11TH FLOOR
ARLINGTON, VA 22203

EXAMINER

BAIG, ADNAN

ART UNIT

PAPER NUMBER

2416

MAIL DATE

DELIVERY MODE

09/15/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/588,726	Applicant(s) HUNT ET AL.	
	Examiner ADNAN BAIG	Art Unit 2416	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 June 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 39-69 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 39-69 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/1/2009</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 39-69 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 39-69 rejected under 35 U.S.C. 103(a) as being unpatentable over Smith (USP 5,878,224) in view of Tontiruttanonon et al. (USP 7,107,061).

Regarding Claim 39, Smith discloses an adaptive overload control method for controlling the amount of traffic offered by a plurality of network access points to a network access controller for processing, the plurality of network access points being arranged under the control of the network access controller to provide said traffic with access to a communications network, the method comprising:

determining if an overload condition exists at the network access controller, (**see Fig. 4, 410 & Col. 5 lines 4-10**)

Art Unit: 2416

and if so: the network access controller externally controlling the amount of traffic which it processes by regulating the rate of traffic offered by said plurality of network access points (**see Fig. 6, Step 606 i.e., reduce rate (regulating)**), by generating at least one global constraint to restrict (**see Fig. 6, Step 606**) the rate at which a network access point admits said traffic to the communications network, (**see Col. 5 lines 29-36**)

communicating said at least one global traffic constraint to one or more of said plurality of network access points, (**see Fig. 2, Col. 4 lines 15-24 & Col. 5 lines 29-36**)

at each network access point which receives said at least one global traffic constraint: processing (**see Col. 5 lines 35-36, i.e., update (processing)**) the received global traffic constraint to determine a plurality of local constraint conditions by:

determining a local gap interval (Δt) to be imposed on said traffic by said respective network access point, said local gap interval (Δt) being dependent on said global traffic constraint, (**see Fig. 1, Col. 13 lines 5-9 & Col. 2 lines 7-15**)

Smith teaches service demand volatility threatens the integrity of services that network servers provide, where servers may experience overloads and must therefore complement engineering practices, (**see Col. 1 lines 35-42**)

Smith does not disclose determining an initial local gap interval (Δt_0) for said respective network access point which differs from said determined local gap interval (Δt) of the respective network access point. Imposing said initial local gap interval (Δt_0) at each of

Art Unit: 2416

said plurality of network access points without waiting for traffic to be received at the respective network access point, wherein each initial local gap interval (Δt_0) is determined independently by each of said plurality of network access points to be between zero and the respective local gap interval (Δt_0), however the limitation is known in the art of communications by evidence of Tontiruttanonon et al. (USP 7,107,061).

Tontiruttanonon discloses determining an initial local gap interval (Δt_0) for said respective network access point which differs from said determined local gap interval (Δt) of the respective network access point, **(Referring to Fig. 5, Tontiruttanonon illustrates an initial gap interval in step 102 for initially blocking traffic which differs from local increment Gap interval 108, (see Col. 5 lines 52-58).**

imposing said initial local gap interval (Δt_0) **(see Fig. 5, step 102 imposes the initial gap interval before local increment Gap Interval 108. Referring to Fig. 7, Tontiruttanonon illustrates iterations of the embodiment of Fig. 5 for the local Gap interval 108 with four control periods 136, 138, 140, and 142 where 132 refers to the amount of time which traffic is blocked and 134 refers to the time where traffic is not blocked. At each control period Gap size 132 is increased by a shred rate percentage (i.e., reject traffic) see Col. 6 lines 30-53).**

Art Unit: 2416

wherein each initial local gap interval (Δt_0) is determined independently to be between zero and the respective local gap interval (Δt) (**see Col. 6 lines 39-44**)

Tontiruttanonon teaches there is a need for adapting to various overload conditions where conventional methods of controlling overload fail to compensate for overload at varying overload onset times and previously described control measures are generally designed for a specific overload condition having specific traffic parameters and are unable to react when an overload occurs that does not fit within the systems parameters, (**see Col. 2 lines 42-58**)

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention for determining an initial local gap interval (Δt_0) for said respective network access point which differs from said determined local gap interval (Δt) of the respective network access point, imposing said initial local gap interval (Δt_0) at each of said plurality of network access points without waiting for traffic to be received at the network access point, wherein each initial local gap interval (Δt_0) is determined independently by each of said plurality of network access points to be between zero and the respective local gap interval (Δt), by including the teachings of Tontiruttanonon who discloses an initial Gap interval (Δt_0) imposed prior to a local Gap interval (Δt) which increases the Gap Interval at various control periods, where each initial gap interval is determined independently to be between zero and the respective local gap interval, within the

Art Unit: 2416

teachings of Smith who discloses determining if an overload condition exists at a network access controller, externally controlling the amount of traffic it processes by regulating the rate of traffic offered by the plurality of said network access points by generating and communicating at least one global traffic constraint to one or more of said plurality of network access points and determining a local gap interval (Δt) to be imposed on said traffic by said respective network access point, said local gap interval (Δt) being dependent on said global traffic constraint because the teaching lies in Tontiruttanonon to adapt to various overload conditions.

Regarding Claim 40, the combination of Smith in view of Tontiruttanonon discloses a method as claimed in claim 39, wherein the network access controller analyses the rate at which traffic is offered to the network access controller to determine said at least one global traffic constraint. **(Smith, see Fig. 6 & Col. 5 lines 29-36)**

Regarding Claim 41, the combination of Smith in view of Tontiruttanonon discloses a method as claimed in claim 39, wherein the network access controller determines if an overload condition exists at the network access controller from the aggregate rate at which traffic is offered by all of said plurality of network access points to said network access controller, and wherein said at least one global constraint is derived from said aggregate offered traffic rate, **(Smith, see Col. 4 lines 15-24)**

Art Unit: 2416

Regarding Claim 42, the combination of Smith in view of Tontiruttanonon disclose a method as claimed in claim 39, wherein the network access controller analyses the rate at which traffic is rejected by the network access controller to determine said at *least* one global traffic constraint. (**Tontiruttanonon, see Col. 5 lines 18-25**)

Regarding Claim 43, the combination of Smith in view of Tontiruttanonon disclose a method as claimed in claim 39, wherein the network access controller determines if an overload condition exists at the network access controller from a reject rate comprising a rate at which the traffic offered by all of said plurality of network access points to said network access controller is rejected, and wherein said at least one global constraint is derived from the reject rate, (**Smith, see Fig. 1, Col. 13 lines 5-9 & Col. 2 lines 7-15**)

Regarding Claim 44, the combination of Smith in view of Tontiruttanonon disclose a method as claimed in claim 39, wherein the controller determines said at least one global traffic constraint by analyzing the rate at which off-hook messages are rejected by the access controller, (**Smith, see Col. 7 lines 55-60**)

Regarding Claim 45, the combination of Smith in view of Tontiruttanonon disclose a method as claimed in claim 39, wherein the aggregate distribution of gap intervals (Δt) imposed by all of said network access points under the control of the network access

Art Unit: 2416

controller is randomized at the onset of the local gap interval (Δt) constraint imposed by each said network access point, **(Smith, see Col. 12 line 64 – Col. 13 line 1-4)**.

Regarding Claim 46, the combination of Smith in view of Tontiruttanonon disclose a method as claimed in claim 39, wherein the aggregate distribution of gap intervals (Δt) imposed by all of said network access points under the control of the network access controller is randomized at the onset of the local gap interval (Δt) constraint imposed by each said network access point, and wherein said randomization is imposed individually by each network access point generating an initial gap interval (Δt_0) whose duration is determined by a random process, **(Smith, see Col. 12 line 64 – Col. 13 line 1-4)**, **(See Tontiruttanonon Col. 5 lines 52-58)**.

Regarding Claim 47, the combination of Smith in view of Tontiruttanonon disclose a method as claimed in claim 39, wherein the aggregate distribution of gap intervals (Δt) imposed by all of said network access points under the control of the network access controller is randomized at the onset of the local gap interval (Δt) constraint imposed by each said network access point, **(Smith, see Col. 12 line 64 – Col. 13 line 1-4)**, and wherein said randomization is imposed individually by each network access point implementing said local gap interval (Δt) constraint immediately following processing **(Smith, see Col. 5 lines 35-36, i.e., update (processing))** of the global constraint information received, **(Smith, see Col. 12 line 64 – Col. 13 line 1-4)**, and wherein the

Art Unit: 2416

time for the global constraint information processing to be completed following the network access controller generating said global constraint information varies for each of said plurality of network access points. (**Tontiruttanonon, see Fig. 7 & Col. 6 lines 30-53**)

Regarding Claim 48, the combination of Smith in view of Tontiruttanonon disclose a method as claimed in claim 39, wherein in said step of communicating said at least one global traffic constraint to one or more of said plurality of network access points, at least one global traffic constraint is multicast to one or more of said plurality of network access points, (**Smith, see Col. 5 lines 29-36**)

Regarding Claim 49, the combination of Smith in view of Tontiruttanonon disclose a method as claimed in claim 39, wherein the initial gap interval (Δt_0) (**See Tontiruttanonon Col. 5 lines 52-58**) is determined at each network access point using a random or pseudo-random technique. (**Smith, see Col. 12 line 64 – Col. 13 line 1-4**)

Regarding Claim 50, the combination of Smith in view of Tontiruttanonon disclose a method as claimed in claim 39, wherein the controller determines said at least one global traffic constraint by analyzing the rate at which off-hook messages are rejected by the access controller (**Smith, see Col. 7 lines 55-60**), wherein said communications

Art Unit: 2416

network is a VoIP network, and said traffic comprises call-related traffic,

(Tontiruttanonon, see Fig. 3 & Col. 4 lines 1-7)

Regarding Claim 51, the combination of Smith in view of Tontiruttanonon disclose a method as claimed in claim 39, wherein the controller determines said at least one global traffic constraint by analyzing the rate at which off-hook messages are rejected by the access controller and wherein said network access controller is a Media Gateway Controller and each of said plurality of network access points comprises a Media Gateway, **(Tontiruttanonon, see Fig. 3 & Col. 4 lines 1-46)**

Regarding Claim 52, the combination of Smith in view of Tontiruttanonon disclose a method as claimed in any claim 39, wherein a global traffic rate constraint is determined by said network access controller for an address, **(Tontiruttanonon, see Fig. 3 Items 68,69 & Col. 4 lines 40-47 i.e., mobile device contain addresses)**

Regarding Claim 53, the combination of Smith in view of Tontiruttanonon disclose a method as claimed in claim 39, wherein the number of lines along which a network access point receives traffic for transmission across the communications network and a scalable gap interval determined by the network access controller based on the aggregate traffic offered to the network access controller by all contributing network

Art Unit: 2416

access points are used to determine said local gap interval (Δt), (**Smith, see Fig. 1, Col. 13 lines 5-9 & Col. 2 lines 7-15**)

Regarding Claim 54, the combination of Smith in view of Tontiruttanonon disclose a method as claimed in claim 39, wherein a dial-plan is implemented by a network access point to make it unnecessary to send an off-hook condition message to the network access controller when a local gap interval (Δt), constraint is being imposed. (**Smith, see Col. 4 lines 25-40**)

Regarding Claim 55, the combination of Smith in view of Tontiruttanonon disclose a method as claimed in claim 39, wherein each network access point determines the initial gap interval (Δt_0), using a probabilistic method, (**Tontiruttanonon, see Col. 5 lines 52-58**)

Regarding Claim 56, the combination of Smith in view of Tontiruttanonon disclose a method as claimed in claim 39, wherein the initial gap interval (Δt_0), if not zero, is determined by each network access point such that all of the network access points' initial gap intervals (Δt_0), are uniformly distributed in the range from zero to the local gap interval (Δt), determined by each network access point. (**Tontiruttanonon, see Col. 6 lines 39-44**)

Regarding Claim 57, Smith discloses a method of controlling the number of calls received by a media gateway controller for admittance to a communications network, the media gateway controller being arranged to be connected to a plurality of media gateways, the method comprising the steps of:

determining at least one scalable call rate control parameter at the media gateway controller; (**see Fig. 6, Col. 5 lines 4-15 & Col. 4 lines 15-24**)

the media gateway controller multicasting the scalable rate control parameters to each media gateway within the domain of control of the media gateway controller; (**see Fig. 2, Col. 4 lines 15-24 & Col. 5 lines 29-36**)

scaling the call rate control parameter at each media gateway to determine a scaled call rate control parameter at the media gateway (**see Col. 5 lines 35-36**), wherein the scaled call rate control parameter comprises a call gap interval (Δt), to be imposed by the media gateway on calls destined for the media gateway controller, (**see Fig. 1, Col. 13 lines 5-9 & Col. 2 lines 7-15**)

Art Unit: 2416

Smith teaches service demand volatility threatens the integrity of services that network servers provide, where servers may experience overloads and must therefore complement engineering practices, **(see Col. 1 lines 35-42)**

Smith does not disclose the media gateway imposing a predetermined initial local call gap interval (Δt_0), having a time duration between zero and the time duration of the local call gap interval (Δt), the media gateway imposing said initial local call gap interval (Δt_0), at each of said plurality of network access points without waiting for a call to be received at the respective network access point, however the limitation is known in the art of communications by evidence of Tontiruttanonon et al. (USP 7,107,061).

Tontiruttanonon discloses determining an initial local gap interval (Δt_0) for said respective network access point which differs from said determined local gap interval (Δt) of the respective network access point, **(Referring to Fig. 5, Tontiruttanonon illustrates an initial gap interval in step 102 for initially blocking traffic which differs from local increment Gap interval 108, (see Col. 5 lines 52-58).**

Having a time duration between zero and the time duration of the local gap interval (Δt) **(see Col. 6 lines 39-44)**

Art Unit: 2416

imposing said initial local gap interval (Δt_0) (see Fig. 5, step 102 imposes the initial gap interval before local increment Gap Interval 108. Referring to Fig. 7, Tontiruttanonon illustrates iterations of the embodiment of Fig. 5 for the local Gap interval 108 with four control periods 136, 138, 140, and 142 where 132 refers to the amount of time which traffic is blocked and 134 refers to the time where traffic is not blocked. At each control period Gap size 132 is increased by a shred rate percentage (i.e., reject traffic) see Col. 6 lines 30-53).

Tontiruttanonon teaches there is a need for adapting to various overload conditions where conventional methods of controlling overload fail to compensate for overload at varying overload onset times and previously described control measures are generally designed for a specific overload condition having specific traffic parameters and are unable to react when an overload occurs that does not fit within the systems parameters, (see Col. 2 lines 42-58)

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention for the media gateway imposing a predetermined initial local gap interval (Δt_0) having a time duration between zero and the time duration of the local gap interval (Δt), the media gateway imposing said initial local gap interval (Δt_0) at each of said plurality of network access points without waiting for a call to be received at the respective network access point, by including the teachings of Tontiruttanonon who discloses an

Art Unit: 2416

initial Gap interval (Δt_0) imposed prior to a local Gap interval (Δt) which increases the Gap Interval at various control periods, where each initial gap interval is determined independently to be between zero and the respective local gap interval, within the teachings of Smith who discloses determining if an overload condition exists at a network access controller, externally controlling the amount of traffic it processes by regulating the rate of traffic offered by the plurality of said network access points by generating and communicating at least one global traffic constraint to one or more of said plurality of network access points and determining a local gap interval (Δt) to be imposed on said traffic by said respective network access point, said local gap interval (Δt) being dependent on said global traffic constraint because the teaching lies in Tontiruttanonon to adapt to various overload conditions.

Regarding Claim 58, the combination of Smith in view of Tontiruttanonon disclose a method as claimed in claim 57, wherein the initial local gap interval (Δt_0) is initially active for a finite sub-set of said plurality of media gateways. **(Referring to Fig. 5, Tontiruttanonon illustrates an initial gap interval in step 102 for initially blocking traffic, (see Col. 5 lines 52-58). (Smith, see Fig. 2 206a, 206b)**

Regarding Claim 59, the combination of Smith in view of Tontiruttanonon disclose the a method as claimed in claim 57, wherein the initial gap interval (Δt_0) **(see Col. 5 lines**

Art Unit: 2416

52-58) is determined using a random or pseudo-random technique. **(Smith, see Col. 12 line 64 – Col. 13 line 1-4).**

Regarding Claim 60, the combination of Smith in view of Tontiruttanonon disclose a method as claimed in claim 57, wherein at least one of said scalable call rate control parameters is assigned to a predetermined called address, **(Tontiruttanonon, see Fig. 3 Items 68,69 & Col. 4 lines 40-47 i.e., mobile device contain predetermined addresses)**

Regarding Claim 61, the combination of Smith in view of Tontiruttanonon disclose a method as claimed in claim 57, wherein a dial-plan is imposed by the media gateway controller on the media gateway to determine the control treatment applied to at least part of a called address, **(Smith, see Col. 4 lines 25-40)**

Regarding Claim 62, the combination of Smith in view of Tontiruttanonon disclose a method as claimed in claim 57, wherein the media gateway analyses at least a portion of the called address prior to sending any call related indication to the media gateway controller. **(Smith, see Col. 4 lines 15-24 i.e., media gateways of Fig. 2, 206a, 206b contain new transactions for processing must analyze the called address)**

Art Unit: 2416

Regarding Claim 63 the combination of Smith in view of Tontiruttanonon disclose a method as claimed in claim 57, wherein the media gateway does not send an off-hook signal to the media gateway controller until the media gateway has analyzed at least one digit of the called address, **(Smith, see Col. 4 lines 15-24 i.e., media gateways of Fig. 2, 206a, 206b contain new transactions for processing must analyze the called address)**

Regarding Claim 64, the combination of Smith in view of Tontiruttanonon disclose a method as claimed in claim 57, wherein the media gateway controller sends a dial-plan to the media gateway in advance **(Tontiruttanonon, see Fig. 5, step 102)** of the media gateway receiving a call from a user, **(Smith, see Col. 4 lines 25-40)**

Regarding Claim 65, the combination of Smith in view of Tontiruttanonon disclose a method as claimed in claim 57, wherein the media gateway controller indicates to the media gateway which dial-tone the media gateway should apply to the next call for a specific termination. **(Smith, see Fig. 1 & Col. 4 lines 25-40) (Tontiruttanonon, see Fig. 7)**

Regarding Claim 66, the combination of Smith in view of Tontiruttanonon disclose a method as claimed in claim 57, wherein the call gap interval (Δt) is imposed by the

Art Unit: 2416

media gateway after the media gateway has analyzed the specific called address,
(Smith, see Col. 4 lines 15-24 i.e., media gateways of Fig. 2, 206a, 206b contain new transactions for processing must analyze the called address)

Regarding Claim 67, Smith discloses an adaptive overload control system comprising:
a communications network, **(see Fig. 2 & Col. 3 line 49-60)**

a plurality of network access points **(see Fig. 2, 206a, 206b)** being arranged under the control of a network access controller **(see Fig. 4)** to provide traffic with access to said communications network, **(see Col. 4 line 7-24)**

wherein the network access controller controls the amount of traffic offered by the plurality of network access points to the network access controller for processing, **(see Fig. 6 step 606 & Col. 4 lines 15-24)**

wherein the network access controller determines if an overload condition exists at the network access controller, **(see Fig. 4, 410 & Col. 5 lines 4-10)**

and, if so: the network access controller externally controls the amount of traffic which it processes by:

regulating the rate of traffic offered by said plurality of network access points by generating at least one global constraint to restrict the rate at which a network access point admits said traffic to the communications network, **(see Col. 5 lines 29-36)**

Art Unit: 2416

communicating said at least one global traffic constraint to one or more of said plurality of network access points, **(see Col. 5 lines 29-36)**

wherein each respective one of said plurality of network access points is arranged to receive said at least one global traffic constraint and process **(see Col. 5 lines 35-36, i.e., update (processing))** the received global traffic constraint to determine a plurality determining a local gap interval (Δt) to be imposed on said traffic by said respective network access point, said local gap interval (Δt) being dependent on said global traffic constraint, **(see Fig. 1, Col. 13 lines 5-9 & Col. 2 lines 7-15)**

Smith teaches service demand volatility threatens the integrity of services that network servers provide, where servers may experience overloads and must therefore complement engineering practices, **(see Col. 1 lines 35-42)**

Smith does not disclose determining an initial local gap interval (Δt_0) for said respective network access point which differs from said determined local gap interval (Δt) of the respective network access point, imposing said initial local gap interval (Δt_0) without waiting for traffic to be received at the respective network access point, wherein each initial local gap interval (Δt_0) is determined independently by each respective one of said plurality of network access points in said adaptive overload control system to be between zero and the respective local gap interval (Δt), however the limitation is known in the art of communications by evidence of Tontiruttanonon et al. (USP 7,107,061).

Art Unit: 2416

Tontiruttanonon discloses determining an initial local gap interval (Δt_0) for said respective network access point which differs from said determined local gap interval (Δt) of the respective network access point, **(Referring to Fig. 5, Tontiruttanonon illustrates an initial gap interval in step 102 for initially blocking traffic which differs from local increment Gap interval 108, (see Col. 5 lines 52-58).**

imposing said initial local gap interval (Δt_0) **(see Fig. 5, step 102 imposes the initial gap interval before local increment Gap Interval 108. Referring to Fig. 7, Tontiruttanonon illustrates iterations of the embodiment of Fig. 5 for the local Gap interval 108 with four control periods 136, 138, 140, and 142 where 132 refers to the amount of time which traffic is blocked and 134 refers to the time where traffic is not blocked. At each control period Gap size 132 is increased by a shred rate percentage (i.e., reject traffic) see Col. 6 lines 30-53).**

wherein each initial local gap interval (Δt_0) is determined independently to be between zero and the respective local gap interval (Δt) **(see Col. 6 lines 39-44)**

Tontiruttanonon teaches there is a need for adapting to various overload conditions where conventional methods of controlling overload fail to compensate for overload at varying overload onset times and previously described control measures are generally

Art Unit: 2416

designed for a specific overload condition having specific traffic parameters and are unable to react when an overload occurs that does not fit within the systems parameters, **(see Col. 2 lines 42-58)**

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention for determining an initial local gap interval (Δt_0) for said respective network access point which differs from said determined local gap interval (Δt) of the respective network access point, imposing said initial local gap interval (Δt_0) at each of said plurality of network access points without waiting for traffic to be received at the network access point, wherein each initial local gap interval (Δt_0) is determined independently by each of said plurality of network access points to be between zero and the respective local gap interval (Δt), by including the teachings of Tontiruttanonon who discloses an initial Gap interval (Δt_0) imposed prior to a local Gap interval (Δt) which increases the Gap Interval at various control periods, where each initial gap interval is determined independently to be between zero and the respective local gap interval, within the teachings of Smith who discloses determining if an overload condition exists at a network access controller, externally controlling the amount of traffic it processes by regulating the rate of traffic offered by the plurality of said network access points by generating and communicating at least one global traffic constraint to one or more of said plurality of network access points and determining a local gap interval (Δt) to be imposed on said traffic by said respective network access point, said local gap interval

Art Unit: 2416

(Δt) being dependent on said global traffic constraint because the teaching lies in Tontiruttanonon to adapt to various overload conditions.

Regarding Claim 68, the combination of Smith in view of Tontiruttanonon disclose an adaptive overload control system as in claim 67, including a network access controller arranged to received traffic offered by a plurality of network access points arranged to provide said traffic with access to a communications network, the network access controller further comprising:

a traffic monitor (**Smith, see Fig. 404**), for monitoring the aggregate offered traffic rate comprising the traffic offered by all of said plurality of network access points to said network access controller, (**Smith, see Col. 5 lines 15-20**)

of local constraint conditions by:

a processor arranged to determine from said aggregate traffic rate if an overload condition exists at the network access controller, (**Smith, see Fig. 4 & Col. 4 line 40-67**)

a processor arranged to generating at least one constraint derived from said monitored aggregate offered traffic rate; (**Smith, see Col. 5 lines 35-36, i.e., update (processing)**)

communication means to communicate said at least one constraint to each of said plurality of network access points, (**Smith, see Col. 5 lines 29-36**)

Regarding Claim 69, the combination of Smith in view of Tontiruttanon disclose an adaptive overload control system as in claim 67, including a network access point arranged to provide a network access controller with an offered traffic rate, and further comprising:

a receiver arranged to received constraint information from the network access controller, (**Smith, see Col. 5 lines 29-36 i.e., communicates to source (receives)**)

a processor arranged to process said received constraint information to determine one or more local constraints to be imposed on the traffic which limit the traffic offered by said network access point to the network access controller, (**Smith, see Col. 5 lines 35-36, i.e., update (processing)**)

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

Art Unit: 2416

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

/ADNAN BAIG/

Examiner, Art Unit 2416

/Huy D Vu/

Supervisory Patent Examiner, Art Unit 2416